UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/717,587	11/21/2000	Christopher G. Kaler	777.338US1	8807

7590 08/13/2003

Steven J Rocci
Woodcock Washburn Kurtz Mackiewicz & Norris LLP
One Liberty Place
46th Floor
Philadelphia, PA 19103

EXAMINER	
VU, TUAN A	
ART UNIT	PAPER NUMBER
2124	4

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/717,587	Applicant(s) KALER ET AL.	
	Examiner Tuan A Vu	Art Unit 2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 November 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 November 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This action is responsive to the application filed November 21, 2000.

Claims 1-34 have been submitted for examination.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: numerals referred to as being "method 500" (p. 17, l. 28), "method 520" (p. 18, l. 23) and "method 530" (p. 19, l. 9), are not shown in corresponding figures, namely 5a, 5b, 5c. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: the listed related files on pages 2, 9 are not provided with appropriate serial number and/or more understandable format for facilitating the Examiner in their consideration.

Appropriate correction is required.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-34 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7, 9-24 of U.S. Patent No. 09/717645 (hereinafter '645) in view of Leblang et al., USPN: 5,649,200 (i.e. Leblang). Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims represent obvious variations of the invention recited in the claims of the '645 application. The following are but a few examples of such conflicts.

As per instant claims 1 and 22, '645 claims 2 and 10 also recite setting a start time for the current time and an end time for most recent version in the data structure; but these '645 claims do not disclose creating a link content data structure; setting a link set reference field referring to a link set data structure corresponding to set of associated project management objects; and setting an object reference field to refer to the project management object as recited in the instant claims. In an analogous method to control objects versioning, Leblang discloses the setting and creating of link set and link data structure or object reference field as claimed (col. 9, lines 8-56; *configuration record* – Fig. 23; *derived object 500 – Fig. 21*; col. 32, line 55 to col. 39; Fig. 20; *VOB* -Fig. 22; link *530* - Fig. 23; *full pathname* - col. 7, line 50 to col. 8, line 3; Fig. 17; *a_slink* – Fig. 18). It would have been obvious for one of ordinary skill in the art at the time the invention was made to add the creation of content data structure and reference link set as claimed to the '645 invention because with such link set and data structure, the method of updating database by '645 would be more enhanced and fault-free when separate data structures

are created and set to support users update instances and thereby keep the database from being overwhelmed by simultaneous update operations with potential contention issues.

As per instant claims 3 and 24, '645 claims 6, 14 also recite such data structure being a row in a database.

As per instant claims 6 and 27, '645 claims 2 and 10 also recite setting an end time field but do not recite some limitations for which the teachings by Leblang as set forth from above would have rendered obvious, such limitations being receiving a link set identifier, a reference to the managed object, and locating a link content data structure.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 16, 17, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Leblang et al., USPN: 5,649,200 (hereinafter Leblang).

As per claim 16, Leblang discloses a processor and readable medium; operating environment for the readable medium; and project management system to maintain version of associations between management objects (e.g. Fig. 1-2; Fig. 6-7, Figs 15-21).

As per claim 17, Leblang further discloses that the project management system include a versioned file database (e.g. VOB 20 – Fig. 1; *version tree* – Fig. 3); a project data database to

store project data (e.g. developer's work station/database *102* – Fig. 2; col. 6, lines 21-25; *VOB 102* (right) – Fig. 6); and project associations database to store associations between project data and versioned files (e.g. *config. record 532* –Fig. 23; col. 6, lines 21-25; private database 22 – Fig. 1; *reuse derived objects* – col. 4, lines 11-21).

As per claim 20, Leblang discloses database for storing both project data and association data (e.g. VOB *102* – Fig. 23).

As per claim 21, Leblang discloses a source code repository (e.g. *VOB 102* (left) – Fig. 6; Fig. 17).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1, 3-6, 8-11, 13-14, 18-19, 22, 24-27, 29-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leblang et al., USPN: 5,649,200 (hereinafter Leblang), in view of Eisenberg et al., USPN: 5,890,166 (hereinafter Eisenberg).

As per claim 1, Leblang discloses a computerized method for adding (e.g. *merge, check-in* – Fig. 13-15; col. 27, lines 50-67) an association of a project management object (hereinafter PMO) to a set of associated project management objects, the method comprising:

creating a link content data structure (e.g. *view* – col. 9, lines 8-56; *configuration record* – Fig. 23; *derived object 500 – Fig.* 21);

setting a link set reference field to a value that refers to a link set data structure corresponding to the set of associated PMOs (e.g. *Unix hard link* - col. 32, line 55 to col. 39; Fig. 20; *VOB* -Fig. 22; link *530* - Fig. 23 – Note: Fig. 23: derived object 500 is link set data structure being link set reference field from configuration record and VOB database of linked derived objects is equivalent to set of PMOs);

setting an object reference field to refer to the project management object (e.g. *full pathname* - col. 7, line 50 to col. 8, line 3; Fig. 17; *a_slink* – Fig. 18).

But Leblang does not specify setting a start time field in the link content data structure to a value representing the current time and setting an end time field in the link content data structure to a value representing a most recent version of the object. However, Leblang teaches associating a time stamp with the referred to objects for update (e.g. Fig. 8-9; col. 11, lines 44-51; col. 16, line 49-55). Besides, the associating of time stamp to version control was a well-known concept at the time of the invention. Further, in a method to control versioning analogous to Leblang's method, Eisenberg discloses setting a start time field in the link content data structure to a value representing the current time (e.g. col. 15, lines 17-20, 27-29) and setting an end time field in the link content data structure to a value representing a most recent version of the object (e.g. e.g. col. 5, lines 39-41). It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide the techniques of setting the start and end time as suggested by Eisenberg to Leblang's time stamp attribute because the recording of time variance or time elapsed related to database update operations enable better understanding of real-world interdependencies of versioned objects, their most current versions, and the dynamic

state of their being updated by more than on operators over time (see Eisenberg: col. 14, line 1 to col. 17, line 67).

As per claim 3, Leblang teaches that the link content data structure is a row (e.g. *record 514* – Fig. 20; Fig. 21 – Note: one entry for the record in the derived object table is equivalent to a row).

As per claim 4, Leblang does not explicitly specify that accessing the derived objects for version update, i.e. link set data structure, means referring to a row in a database; but teaches a table or record of the object to modify (e.g. *VERSION OBJECT* , *additional fields* – Fig. 9), hence implicitly teaches row to such record.

As per claim 5, Leblang disclose include/header files or object code, meta-data and program source, release notes and scripts (e.g. col. 28, line 33 to col. 29, line 31; Fig. 17; record 532 – Fig. 23; *rlsnotes 208* – Fig. 6); hence discloses PMOs as claimed.

As per claim 6, Leblang discloses a computerized method for removing (e.g. *merge, check-in* – Fig. 13-15) an association of a project management object (hereinafter PMO) to a set of associated project management objects, the method comprising:

receiving an identifier for a link set corresponding to the set of associated PMOs (e.g. . *full pathname* - col. 7, line 50 to col. 8, line 3; *Unix hard link* - col. 32, line 55 to col. 39; Fig. 22);

receiving a reference to the PMO (e.g. col. 32, line 55 to col. 39; link *530* - Fig. 23);

locating a link content data structure containing the reference to the PMO (e.g. record *514* – Fig. 20; *config rec 530*, link *530* – Fig. 21).

But Leblang fails to specify setting a end time field in the link content data structure to a value representing the current time. But this limitation has been addressed in claim 1 above using Eisenberg's teachings, hence is rejected herein likewise.

As per claims 8-9, refer to rejection of claims 4 and 3, respectively.

As per claim 10, see claim 5.

As per claim 11, Leblang discloses a method for retrieving a set of project management objects associated (e.g. col. 2, lines 23-52) with a source program management object (PMO), the method comprising:

receiving a reference to the source program management object and a time value (e.g. col. 3, lines 10-18; link *530* - Fig. 23; col. 11, lines 17-60 – Note: getting a reference to a derived object and version-selector to select version of object for build and update with associated time stamp is equivalent to receiving a time value);

querying a set of link content data structures to create a set of valid link content data structures (e.g. col. 4, lines 11-27; col. 11, lines 17-60 – Note: retrieving reuse set of derived objects in accordance with version requirements is equivalent to querying a set of link content data structures to set a valid set), wherein each link content data structure contains reference to the source PMO (e.g. *file name, versions of sources, dependencies* - Fig. 20);

creating a set of source link set references comprising the link set reference contained in the set of valid link content data structures (e.g. *full pathname* - col. 7, line 50 to col. 8, line 3; entries *532* of config record , link *530* to *derived object 500* – Fig. 23);

querying the set of link content data structures to create a set of matching PMOs for each source link set reference (e.g. col. 2, line 23-34; col. 10, line 53 to col. 11, line 59 – Note: for

each reference by the config record or bill-of-materials, selecting the correct set of derived objects is equivalent to querying as claimed), wherein each matching PMO has a link set reference equal to the source link set reference (e.g. *full pathname* - col. 7, line 50 to col. 8, line 3; Fig. 23).

But Leblang does not disclose that each valid link content data structure contains a start time less or equal to the time value and an end time greater or equal to the time value; nor does Leblang specify that the PMO has a start time and end time <= or >= such time value. But, according to the method of Eisenberg as mentioned in claim 1, the use of time variants as field of the database record so to determine which version has been superseded by another version discloses the limitation that the time value as claimed has to fall between such start and end time (col. 14, line 38 to col. 15, line 49). Hence, in view of the time stamp teachings by Leblang and the added features by Eisenberg to address the varying state of a timed version of objects, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Leblang's method for storing objects (i.e. link content data structure, matching PMO) so as to include the start and end time fields as suggested by Eisenberg because this would enhance the version checking and promoting of version based on knowledge time variants fields as shown by Eisenberg.

As per claim 13, see claim 5.

As per claim 14, Leblang discloses a data structure comprising: a first field comprising a reference to a link set data structure corresponding to a set of associated PMOs (e.g. *Unix hard link* - col. 32, line 55 to col. 39; Fig. 20; link *530* - Fig. 23);

a field comprising a reference to a target PMO (e.g. *file name, versions of sources, dependencies* - Fig. 20 – Note: versions of source files in derived objects are equivalent to target PM object).

But Leblang does not specify a second field comprising a start time, a third field comprising a end time, wherein the second and third field define a range of time that the target PMO is associated with the set of associated PMOs. But the limitation of having 2 such fields to use as range for determining time of the target PMO has been addressed in claim 11 above.

As per claims 18 and 19, with reference to claim 17, Leblang fails to specify that the project data and association data database is a relational database. But Eisenberg, in a similar system to version control objects, suggests relational database for the preferred embodiment (e.g. col. 1, lines 41-53). It would have been obvious for one of ordinary skill in the art at the time the invention was made to implement Leblang database system using the suggested relational type DB by Eisenberg, since this type of database is the most well-known and used by many enterprises and would make it more efficient and friendly for the storing, normalizing and querying of records or data.

As per claim 22, this is a computer medium claim of corresponding claim 1; hence is rejected with the same rationale used therein.

As per claims 24-26, these claims correspond to claims 3-5; and are rejected likewise, respectively.

As per claim 27, this is a computer medium claim of corresponding claim 6; hence is rejected with the same rationale used therein.

As per claims 29-31, refer to claims 3-5, respectively, for corresponding rejections.

As per claim 32, this is a computer medium claim of corresponding claim 11; hence is rejected with the same rationale used therein.

As per claim 34, see claim 5.

10. Claims 2, 7, 12, 15, 23, 28, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leblang et al., USPN: 5,649,200, and Eisenberg et al., USPN: 5,890,166, as applied to claims 1, 6, 11, 14, 22, 27, 32 from above, in view of Reed et al., USPN: 5,862,325 (hereinafter Reed).

As per claim 2, Leblang only teaches link being hard pathname but does not specify object reference field being an URL. However, Leblang teaches hyperlinks to reach versioned data or database (e.g. col. 16, line 57 to col. 17, line 29). Reed, in a communication scheme to enable update of database versioned data analogous to Leblang's version control method using system hard links, discloses use of URL to reach out for version instances of objects (e.g. *http://company.com/commobject3481.cos* -- col. 91, line 27 to col. 92, line 9; Fig. 2). It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide such URL to locate version database as suggested by Reed, and apply this to Leblang linking method because database accessible across the internet would alleviate extraneous storage resources of the local system or environment under which Leblang's method operates for version update.

As per claim 7, this claim corresponds to claim 2 above, hence is rejected herein using the same rationale as set forth therein.

As per claim 12, this claim corresponds to claim 2 above, hence is rejected herein using the same rationale as set forth therein.

As per claim 15, see claim 2.

As per claims 23 and 28, see claim 2.

As per claim 33, see claim 2 for corresponding rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat No. 6,366,933 to Ball et al., disclosing web page links to version and user viewing and listing of files.

U.S. Pat No. 6,460,052 to Thomas et al., disclosing mapping two table columns for version differential checking.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (703)305-7207. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703)305-9662.

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
Washington, D.C. 20231
or faxed to:
(703) 746-7239, (for formal communications intended for entry)
or: (703) 746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA. , 22202. 4th Floor(Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

VAT
August 3, 2003